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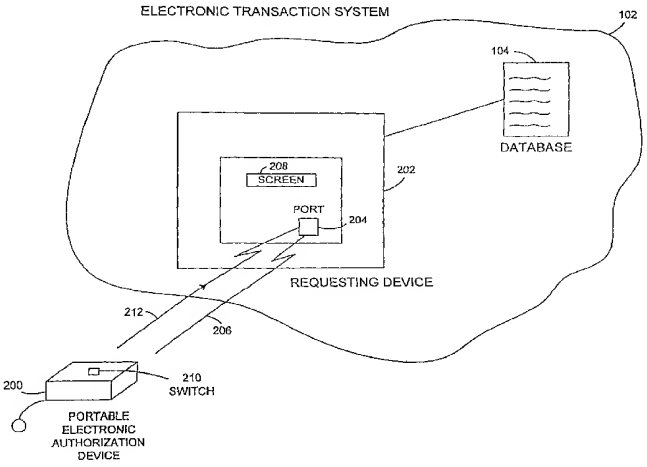
(54) Title: METHODS OF EXCHANGING SECURE MESSAGES



(57) Abstract: The invention enables a registered PEAD user to exchange a secure message with another registered PEAD user by using the user ID and the user public key information in the server. The sender can retrieve the public key information from the server 1201 using the receiver's user ID as an index; then the sender can derive the shared secret using the receiver's public key. The sender then can encrypt the message with the shared secret and send it over to a server with the other PEAD user's (receiver's) ID appended with the sender's user ID over the wireless network and/or Internet. The server then stores the message and forwards the message to the receiver once the receiver's PEAD is polling for messages. (It is understood in the art that the server can push the messages to the receiver's PEAD). The receiving PEAD user can use the sender's PEAD user ID and sender's public key information to derive the shared secret to decrypt a received secure message. Once a shared secret is computed or established by protocol between two users, that shared secret can be saved in the PEAD for future communication encryption/decryption usage.

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	WO 99 57844 A (CERTICOM) 11 November 1999 (1999-11-11) abstract; claim; figures	1,2,5,15
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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Name and mailing address of the ISA	Authorized officer
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